

ABSTRACT

A phosphor element includes a pair of electrodes opposed to each other and a phosphor layer sandwiched between the pair of electrodes and having silicon fine particles whose average particle diameter is not more than 100 nm, and at least a part of a surface of the silicon fine particle is covered with a conductive material. In addition, the conductive material may include an oxide or a composite oxide containing at least one element selected from a group of indium, tin, zinc, and gallium.